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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,244	11/17/2003	Rakesh Vig	VTI-114.8B(CIP)	4986
47670	7590	12/06/2006	EXAMINER	
KELLEY DRYE & WARREN LLP TWO STAMFORD PLAZA 281 TRESSER BOULEVARD STAMFORD, CT 06901			ANGEBRANNDT, MARTIN J	
			ART UNIT	PAPER NUMBER
			1756	

DATE MAILED: 12/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/715,244

Applicant(s)

VIG ET AL.

Examiner

Martin J. Angebrannndt

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

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1. The response of the applicant have been read and given careful consideration Responses to the arguments of the applicant are presented after the first rejection to which they are directed.
2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 22-24 are rejected under 35 U.S.C. 102(b) as being fully anticipated by Karasawa et al. JP 55-079441.

Karasawa et al. JP 55-079441 in example 3 uses methylene blue in PVA together with an electron donative amine (triethanolamine). The use of polymeric amines shown on page 3 as electron donative agents, particularly formulae VII and VIII. These are used for recording optical information.

The argument of the applicant with regard to claims 22-24 is not found persuasive. The examiner holds that the blue form of the methylene blue is known to inherently absorb strongly at 650 nm as evidenced by Smith et al. '484 in column 12 at lines 11-13 which describes this as

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useful for DVD lasers. The applicant argues interferometric effects, but fails to account for the broad molecular absorption of this dye. So even if the dyes was shifted a few nm due to the chemical environment, the broad absorption of about 150 nm (see Taylor, "Chromatic separation and isolation of metachromic thiazine dyes", J. Histochemistry and Cytochemistry, Vol. 8 pp. 248-257 (1960) on page 254) would still include wavelengths within the recited range. The rejection stands.

The applicants statement at [00170 of the prepub is noted. The examiner takes this to be a description of the absorption maximum. The absorption of the dye is much broader than that the statement cited only describes the specific case of the applicant's "typical" DVD coating, without specifying the conditions or the composition. The cited paragraph does support the examiner's position that methylene blue absorbs at 650 nm and that the shift is due to the composition. . DVD's were not available or perhaps even envisioned in 1980 (the date of the reference), so it is not clear how the applicant's statement could obviate the rejection at hand. If the applicant has declaration evidence which directly addresses the composition set forth in Karasawa et al. JP 55-07944 which includes the electron transfer agent (a base) and measures the absorption of that layer, the examiner will certainly consider it and withdraw the rejection if warranted by the data. The applicants argue that the examiner has ignored the requirements of anticipation. The examiner disagrees, having addressed the relevance of the statement in the applicants specification above. Should the have evidence that the methylene blue would not absorb in the recited range in the presence of triethanol amine, this should be made of record and the rejection would be withdrawn. The minor difference between methylene blue and the applicant's propylene blue make it clear to one skilled in the art that their spectral properties

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would be similar and this is supported by Taylor, "Chromatic separation and isolation of metachromic thiazine dyes", J. Histochemistry and Cytochemistry., Vol. 8 pp. 248-257 (1960) in table 1, where the difference between methylene blue and propylene blue in MeOH is 7 nm and the difference in acetic acid as pH 5 is 13 nm and figure 7 showing the absorptions to be more than 100 nm in breadth. It is not logically clear based upon the evidence how the applicant can argue that methylene blue does not meet the requirements, but propylene blue does. The applicant argues as if methylene blue based compositions were not embraced by the compositions, but has not specifically excluded methylene blue through a negative limitation as was done in claim 4. The examiner feels comfortable with his position and the rejection is maintained.

5. Claims 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karasawa et al. JP 55-079441.

With respect to the embodiments not anticipated, it would have been obvious to one skilled in the art to modify the cited example by using other disclosed amines, including the polymeric amines disclosed on page 3, with a reasonable expectation of forming a useful optical recording medium based upon the disclosure of equivalence.

The rejection stands for the reasons above noting the reference teaches the formation of a colored image.

The applicant argues as if methylene blue based compositions were not embraced by the compositions, but has not specifically excluded methylene blue through a negative limitation as was done in claim 4. As discussed above, the changes suggested in the reference would be embraced by the current scope of coverage sought. The rejection stands.

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6. Claims 4-14 and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karasawa et al. JP 55-079441, in view of Taylor, "Chromatic separation and isolation of metachromic thiazine dyes", J. Histochemistry and Cytochemistry., Vol. 8 pp. 248-257 (1960)

Taylor, "Chromatic separation and isolation of metachromic thiazine dyes", J. Histochemistry and Cytochemistry., Vol. 8 pp. 248-257 (1960) teaches tetrapropyl, diethyl/dimethyl, tetraethyl in table I on page 256 and includes their absorption maxima. The breadth of the absorption of these dyes is shown in figure 7, which evidences the spectra being more than 150 nm wide and centered about 610-650 nm.

In addition to the basis provided above, it would have been obvious to use other alkyl groups, such as propyl or ethyl substituents in place of at least one of the N-methyl groups as disclosed by Taylor, "Chromatic separation and isolation of metachromic thiazine dyes", J. Histochemistry and Cytochemistry., Vol. 8 pp. 248-257 (1960), in place of the methyl groups of the methylene blue used in the example of Karasawa et al. JP 55-079441 with a reasonable expectation of success based upon the direction to thionine dyes within Karasawa et al. JP 55-079441.

The applicant argues that the references are non-analogous. The examiner disagrees, noting that in both cases the references are concerned with the absorption of the dyes. The addition of Taylor, "Chromatic separation and isolation of metachromic thiazine dyes", J. Histochemistry and Cytochemistry., Vol. 8 pp. 248-257 (1960) evidencing the propyl analog of methylene blue is known directs one skilled in the art to this compounds over the others embodied by formula 2 of Yamada et al. 63-187154. Removing the "transient" language does

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not preclude transient reactions. It broadens the claims to include transient and permanent coloration. The rejection stands.

The spectroscopic data and the similarity of the compounds leads one to make the substitution and have a reasonable expectation of success of forming a useful optical recording medium with performance similar to that of Karasawa et al. JP 55-079441. **The examiner notes that the claims rejected under this heading do not include those directed to the composition applied to the ROM medium.**

7. Claims 1,14-15 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. '484, in view of Taylor, "Chromatic separation and isolation of metachromatic thiazine dyes", J. Histochemistry and Cytochemistry., Vol. 8 pp. 248-257 (1960).

Smith et al. '484 teach the use of various phenothiazines including methylene blue and toluidine blue O in the copy prevention of optical recording media. (cols. 11 and 12). The substrate is provided with reflective layer (156) and a copy protection layer (160) (9/14-44).

It would have been obvious to use other alkyl groups, such as ethyl or propyl moieties disclosed by Taylor, "Chromatic separation and isolation of metachromatic thiazine dyes", J. Histochemistry and Cytochemistry., Vol. 8 pp. 248-257 (1960), in place of at least one of the methyl groups of the methylene blue used by Smith et al. '484 with a reasonable expectation of success.

The applicant asserts that the limited use of the instant application is different in mechanism from the prior art. This is incorrect as both rely upon the coloration of a dye to preclude accessing the recording medium from that side. The instant claims do not preclude the presence of oxygen to ensure the coloration of the thiazine dye.

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The applicant implies that the rejection under this heading is applied to the same claims as above. There are clear differences in the scope and the listing of claims reflects that. The examiner notes that the rejection under this heading does not address the presence of an electron transfer agent. The question is one of equivalence of the dyes, spectroscopically which is addressed by table 1 of Taylor and discussed above. The applicant could provide some data evidencing unexpected results when propylene blue is used in place of methylene blue, but that evidence is not yet in the record. The rejection stands.

8. Claims 1,14-15 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Selinfreund et al. WO 02/03386, in view of Smith et al. '484 and Taylor, "Chromatic separation and isolation of metachromic thiazine dyes", J. Histochemistry and Cytochemistry., Vol. 8 pp. 248-257 (1960).

Selinfreund et al. WO 02/03386 teaches with respect to figure 8, the optical recording medium where the light sensitive materials which affects authentication being provided over the entire medium, , on one surface of the medium or at predetermined areas. (page 25-26). An embodiment where the security dye was coated on a CD is disclosed. (29/24-26) Examples describes a medium provided with authentication software. (pages 32-34). The other examples are similar. The use of methylene blue with DVD media is disclosed. in table 1 on page 21. Figure 1 shows the media written and read from the same side. Figure 4 shows the substrate with the light sensitive layer (400) disposed therein. The pits and lands are coated with a reflective layer (240) and a protective layer (235). (13/1+, 22/29-23/12). The light sensitive (400) may be placed at any location on or in the medium where it affects the laser (22/25-28).

It would have been obvious to one skilled in the art to art to modify the embodiment of figure 8 by placing the reactive layer adjacent the pits and reflective layer as taught by Smith et al. '484 with a reasonable expectation of providing the authentication desired based upon the disclosure to place the layer anywhere in the medium where it affects the laser beam as well as to use other alkyl groups, such as ethyl or propyl disclosed by Taylor, "Chromatic separation and isolation of metachromic thiazine dyes", J. Histochemistry and Cytochemistry., Vol. 8 pp. 248-257 (1960), in place of at least one of the methyl groups of the methylene blue used by Smith et al. '484 and Selinfreund et al. WO 02/03386 with a reasonable expectation of success.

The rejection stands for the reasons above.

9. Claims 1,14-15 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Selinfreund et al. '631, in view of Taylor, "Chromatic separation and isolation of metachromic thiazine dyes", J. Histochemistry and Cytochemistry., Vol. 8 pp. 248-257 (1960).

Selinfreund et al. '631 teaches in claims 36-52, the optical recording medium where the light sensitive materials which affects authentication being provided over the entire medium which is then coated with a reflective layer. Section [0053] describes a medium provided with authentication software. The use of methylene blue with DVD media is disclosed in table 1 on page 7. Figure 1 shows the media written and read from the same side.

It would have been obvious to one skilled in the art to art to modify the embodiment of claims 36-52 by using other alkyl groups, such as ethyl or propyl disclosed by Taylor, "Chromatic separation and isolation of metachromic thiazine dyes", J. Histochemistry and Cytochemistry., Vol. 8 pp. 248-257 (1960), in place of at least one of the methyl groups of the methylene blue used by Selinfreund et al. '631 with a reasonable expectation of success.

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The rejection stands for the reasons above.

10. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

11. Claims 1 and 4-24 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-17 of US Patent 6952392 (which matured from copending Application No. 10/641,784 (US 2004/0110088)). Although the conflicting claims are not identical, they are not patentably distinct from each other because the subject matters overlaps and it would have been obvious to use the propylene blue compounds based upon the direction in claims 8 to the substituents being propyl or hexyl.

The provisional nature of this rejection is withdrawn.

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37


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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Martin J. Angebrannndt whose telephone number is 571-272-1378. The examiner can normally be reached on Monday-Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Martin J. Angebrannndt
Primary Examiner
Art Unit 1756

12/04/2006